

### ABSTRACT

A tire building machine includes a band drum rotation angle control means for rotating a band drum applied with a carcass band, by a required angle determined on the basis of the waveform of a radial force on a tire of the same  
5 size measured prior to tire building, or the characteristic waveform of a tire correlated therewith, and an inclination control mechanism for inclining the center axis of at least one of the grip sections of a bead core transfer device with respect to the axis of the band drum in a predetermined direction by the required angle determined on the basis of the aforesaid waveform. Information based on  
10 the RF waveform of measured online, or the waveform of tire characteristics correlated therewith, is fed back to the production process, making it possible to control predetermined RFV-related factors online and thereby improve the RFV level.